

WHAT IS CLAIMED IS:

1. A digital broadcast receiving apparatus for amplifying a digital modulated signal wave propagated through air with gain automatically adjusted to have a predetermined amplitude, and demodulating the modulated signal wave to a digital
5 signal, said apparatus comprising:

tuner means for frequency-converting said received digital modulated signal wave into a first modulated signal;

first automatic gain control amplification means for controlling gain of said tuner means to make a level of said first
10 modulated signal at a first predetermined level;

A/D conversion means for converting, analog to digital, said first modulated signal into a second modulated signal;

demodulation means for demodulating said second modulated signal into a first demodulated digital signal; and

15 second automatic gain control amplification means for amplifying a level of said first demodulated digital signal to be at a second predetermined level, and generating a second demodulated digital signal.

2. The digital broadcast receiving apparatus according to claim 1, wherein

said first automatic gain control amplification means amplifies said digital modulated signal wave without following

5 frequency fluctuations thereof, and generates said first modulated signal, and said second automatic gain control amplification means amplifies said first demodulated digital signal by following frequency fluctuations thereof, and generates said second demodulated digital signal.

3. The digital broadcast receiving apparatus according to claim 1, wherein

5 said first automatic gain control amplification means amplifies said digital modulated signal wave by following frequency fluctuations thereof that are smaller than a first predetermined frequency, and generates said first modulated signal, and said second automatic gain control amplification means amplifies said first demodulated digital signal by following frequency fluctuations thereof under a second
10 predetermined frequency that is larger than said first predetermined frequency, and generates said second demodulated digital signal.

4. The digital broadcast receiving apparatus according to claim 3, further comprising:

level detection means for detecting the level of said first modulated signal; and

5 gain change means for changing the gain of the tuner means based on said detected level.

5. The digital broadcast receiving apparatus according to claim 4, further comprising:

threshold means for taking, as a threshold, a threshold voltage at which a control-voltage to amplitude-attenuation

5 characteristic of said tuner means is abruptly changed, wherein

said gain change means takes, as said gain, a first predetermined value when the detected level is higher than said threshold, and a second predetermined value smaller than the first predetermined value when the detected level is lower than said

10 threshold.

6. The digital broadcast receiving apparatus according to claim 4, further comprising:

first threshold means taking, as a first threshold, a voltage lower, by a first predetermined amount, than a threshold

5 voltage at which a control-voltage to amplitude-attenuation characteristic of said tuner means is abruptly changed; and

second threshold means taking, as a second threshold, a voltage lower, by a second predetermined amount, than said threshold voltage, wherein

10 said gain change means takes, as said gain, a first predetermined value when the detected level is lower than said first threshold; a second predetermined value larger than said first predetermined value when the detected level is higher than said second threshold; and one of the first and second

15 predetermined values based on a value immediately before said
detected level when said detected level is higher than said first
threshold and lower than said second threshold.

7. A digital broadcast receiving apparatus for
amplifying a digital modulated signal wave propagated through air
with gain automatically adjusted to have a predetermined
amplitude, and demodulating the modulated signal wave to a digital
5 signal, said apparatus comprising:

tuner means for frequency-converting said received
digital modulated signal wave into a first modulated signal;

first automatic gain control amplification means for
controlling gain of said tuner means to make a level of said first
10 modulated signal at a first predetermined level;

A/D conversion means for converting, analog to digital,
said first modulated signal into a second modulated signal ; and

second automatic gain control amplification means for
amplifying a level of said second modulated signal to be at a second
15 predetermined level, and generating a third modulated signal.